



**CITY OF NEWPORT BEACH**  
**COMMUNITY DEVELOPMENT DEPARTMENT**  
**BUILDING DIVISION**

**BUILDING CODE POLICY**

Effective Date	Subject	Policy No.
September 1, 1999 Revised: October 26, 2011	Determination of Site Coefficients, $F_a$ and $F_v$ , for Liquefiable Soils	[ASCE 7-05] 20.2 (supersedes UBC 1636.2)

For a structure on a site, classified Site Class F for liquefiable soils, a site response analysis is required, unless the fundamental period of vibration for the structure is less than or equal to 0.5 s ([ASCE 7-05] 20.2, 20.3.1(1.) Exception). Buildings with moment-resisting frame seismic force-resisting systems up to 35' in height will have periods approximating 0.5 s.

According to the exception to [ASCE 7-05] 20.3.1(1.) for liquefiable soils, in lieu of the site response analysis, a site class may be determined in accordance with [ASCE 7-05] Section 20.3, and corresponding values for site coefficients  $F_a$  and  $F_v$  may be determined from Tables 11.4-1 and 11.4-2. The purpose of this policy is to provide guidance for the selection of the appropriate site classification for determination of the applicable site coefficients. See conditions 1 and 2 below.

Condition 1:

For granular soils, Site Class D may be assumed provided  $\tilde{N} > 15$  for the top 100 feet. Otherwise, Site Class E may be assumed.  $\tilde{N}$  = Average Field Standard Penetration Resistance per [ASCE 7] 20.4.2.

Condition 2:

For silty soils, Site Class E may be assumed.

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